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RESEARCH IN MOTION				
ATTN: GLENDA WOLFE				
BUILDING 6, BRAZOS EAST, SUITE 100				
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IRVING, TX 75039				
EXAMINER				
BIBBEE, JARED M				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/776,006

Applicant(s)

YACH ET AL.

Examiner

JARED M. BIBBEE

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2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action has been issued in response to amendment filed on 7 May 2007. Claims 1-20 are pending. Applicants' arguments have been carefully and respectfully considered in light of the instant amendment and are persuasive, as they relate to the claim rejections under 35 U.S.C. 102 as will be discussed below. However, after further search and consideration a new grounds of rejection has been necessitated due to the amendments. Accordingly, this action has been made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(c), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yianilos et al (U.S. 2002/0029214 A1) in view of Kilner (US 5,649,089).

With respect to independent claim 1, Yianilos teaches a method for a radio communication system comprising a network part, having a network copy of a database maintained thereat and a mobile node, having a corresponding mobile copy of the database maintained thereat, the network copy of the database and the mobile copy of the database each being comprised of a plurality of data records with each record being comprised of at least one data field, said method for determining whether the network copy of the database matches the mobile copy of the database (i.e., *“FIG. 1 depicts a synchronizable database. On the left, the figure depicts a car dealer's database, 1, that maintains a schedule of factory repairs. Each time a customer needs a factory repair, the dealer schedules it in his database. The factory, on the right, maintains a master schedule of repairs, 2. Periodically the two must be synchronized—in this case the new and changed orders must be copied from the dealer's site to the factory site and inserted into the factory's database. In order to rapidly identify the records to be transferred, the databases each support a special facility for efficient computation of a digest (hash) of any specified range of keys, which amounts to a summary of the range. This special facility*

corresponds to the invention's summarizable database abstraction. An efficient synchronizations facility then uses this smart summarization mechanism to minimize the amount of data that must be transferred." The preceding text excerpts clearly indicate that the system compares two remote databases to determine which records need to be synchronized. In order to identify the records that need to be synchronized, each database contains a facility for hashing a range of database records (i.e. Group Hashing). The Hashings are then compared to determine which records need to be synchronized. (see paragraphs [0013], [0025], [0062], and [0067])), said method comprising: forming, in an individual record hash generator at the mobile node, individual record hash values from individual records of the first data base (see paragraphs [0070], [0075], [0081], and [0083]); and forming, in a group hash generator at the mobile node, a group hash value, the group hash value being communicated by the mobile node to the network part whereat the group hash value from the mobile node is compared to a group hash value calculated at the network part to determine whether the network copy database matches the mobile copy of the first database (see paragraphs [0071], [0076], [0081], and [0083]).

Yianilos fails to explicitly recite forming a group hash value from the individual record hash values formed by the individual record hash generator.

However, Kilner teaches forming a group hash value from the individual record hash values formed by the individual record hash generator (*see column 2, lines 39-47; The record checksum is used to construct a virtual checksum.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Yianilos to incorporate the checksum/hash generation of Kilner for

the purpose of maintaining data integrity without locking out changes to the database (*see Kilner column 1, lines 50-54*).

With respect to dependent claim 2, Yianilos teaches further therein the individual record hash generator at the mobile node, generates individual record hash values from portions of selected data records within the mobile node (*see paragraphs [0070], [0075], [0081], and [0083]*).

With respect to dependent claim 3, Yianilos teaches further an individual record hash buffer coupled to the individual record hash generator is adapted to receive the individual record hash values representative formed by said individual record hash generator, said individual record hash buffer buffering the individual hash record values representative of the individual record hash values (*see paragraphs [0070], [0071], [0075], [0076], [0081], and [0083]*).

With respect to dependent claim 4, Yianilos teaches further the individual record hash values formed by said individual record hash generator and by said group hash generator are selectably communicated to the network part in response to a message received from the network part in order to determine whether the network copy of the first database and the mobile copy of the first database match one another (*see paragraphs [0070], [0071], [0075], [0076], [0081], and [0083]*).

With respect to dependent claim 5, Yianilos teaches further individual record hash values formed by said individual record hash generator are communicated to the network part subsequent to communication of the group hash value to the network part (*see paragraphs [0070], [0071], [0075], [0076], [0081], and [0083]*).

With respect to dependent claim 6, Yianilos teaches further the individual record hashes formed by said individual record hash generator are communicated to the network part upon receipt of a message from the network part that indicates that a determination was made that the network copy of the database and the mobile copy of the database are out of match with one another (see paragraphs [0070], [0071], [0075], [0076], [0081], and [0083]).

With respect to dependent claim 7, Yianilos teaches further determination is performed at the network part and wherein said method further comprises the step of a detecting a mismatch between individual record hash values formed at the mobile node and individual record hash values formed at the network part (see paragraphs [0062], [0067], [0081], and [0083]).

With respect to dependent claim 8, Yianilos teaches further the step of buffering in an individual record hash buffer, an individual record hash values that are representative of individual record hash values formed by said individual record hash generator, the values representative of the individual record hash values being capable of being retrieved from said buffer for communication to the network part (see paragraphs [0070], [0075], [0081], and [0083]).

With respect to dependent claim 9, Yianilos teaches further a group of data records in the data base in the mobile node is identified and selected for hashing by the mobile node by a group identifier, the group identifier for communication to the network part together with a group hash value formed by said group hash generator (see paragraphs [0071], [0076], [0081], and [0083]).

With respect to dependent claim 10, Yianilos teaches further the step of generating a message in a message generator that is adapted to receive indications of the group hash value and

the group identifier associated therewith, said message generator forming a message formatted to include both the group hash value and the group identifier (see paragraphs [0062], [0067], [0071], [0076], [0081] and [0083]; Note that the summary that is created on both sides of the network is the message, which comprises the group hash keys and values that are to be compared.).

With respect to dependent claim 11, Yianilos teaches further determining in a determiner located at the network part, whether a group hash formed in and received from the mobile node matches a network generated group hash value formed at the network part (see paragraphs [0071], [0076], [0081], and [0083]).

With respect to dependent claim 12, Yianilos teaches further a requester located at the network part and which is coupled to said determiner, receives indications of determinations that the group hash value formed in the mobile node does not match the group hash value formed at the network part, said requestor then requesting additional information associated with the at least the first mobile copy database (see paragraphs [0067]-[0072]).

With respect to dependent claim 13, Yianilos teaches further the additional information selectively requested by said requestor comprises individual record hash values (see paragraphs [0069] and [0070]).

With respect to dependent claim 14, Yianilos teaches further said determiner is further adapted to receive values of the individual record hash values communicated to the network part by the mobile node, said determiner determining whether values of the individual record hash values correspond with corresponding network generated individual record hash values (see paragraphs [0070], [0075], [0081], and [0083]).

With respect to independent claim 15, Yianilos teaches a method for a radio communication system comprising a network part having at least a network copy, a database maintained thereat and a mobile node having a corresponding mobile copy of the database maintained thereat, data of the first network copy database and the first mobile copy database being in match with one another when data of each data record of the network copy of the database is in complete correspondence with corresponding data of each data record of the mobile copy of the database, said method for determining of whether the network copy of the database is in match with the mobile copy of the database (i.e., *“FIG. 1 depicts a **synchronizable database**. On the left, the figure depicts a car dealer's database, 1, that maintains a schedule of factory repairs. Each time a customer needs a factory repair, the dealer schedules it in his database. The factory, on the right, maintains a **master** schedule of repairs, 2. Periodically **the two must be synchronized**--in this case the new and changed orders must be copied from the dealer's site to the factory site and inserted into the factory's database. In order to rapidly identify the records to be transferred, the databases each support a special facility for efficient computation of a digest (hash) of any specified range of keys, which amounts to a summary of the range. This special facility corresponds to the invention's summarizable database abstraction. An efficient **synchronizations** facility then uses this smart summarization mechanism to minimize the amount of **data** that must be **transferred**.”* The preceding text excerpts clearly indicate that the system compares two remote databases to determine which records need to be synchronized. In order to identify the records that need to be synchronized, each database contains a facility for hashing a range of database records (i.e. Group Hashing). The Hashings are then compared to determine which records

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need to be synchronized. (see paragraphs [0013], [0025], [0062], and [0067])), said method comprising: forming in a mobile node, individual record hashes of individual data records a first selected group of data records of the mobile copy of the data base (see paragraphs [0070], [0075], [0081], and [0083]); sending a group hash value from the mobile node to the network part; at the network part, comparing the group hash value received from the mobile node with a corresponding network generated group hash value formed at the network part from the network copy of the database (see paragraphs [0071], [0076], [0081], and [0083]); and determining whether the group hash value from the mobile corresponds in value with the corresponding network generated group hash value and determining therefrom whether the network copy and the mobile node copies of the database match each other (see paragraphs [0062], [0067], [0071], [0076], [0081], and [0083]).

Yianilos fails to explicitly recite forming a group hash value from a plurality of the individual record hashes.

However, Kilner teaches forming a group hash value from a plurality of the individual record hashes (*see column 2, lines 39-47; The record checksum is used to construct a virtual checksum.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Yianilos to incorporate the checksum/hash generation of Kilner for the purpose of maintaining data integrity without locking out changes to the database (*see Kilner column 1, lines 50-54*).

With respect to dependent claim 16, Yianilos teaches further the step of identifying the network copy of the database to be in match with the mobile copy database when if the group

hash value of the mobile node is determined to correspond in value with the corresponding network generated group hash value (see paragraphs [0071], [0076], [0081], and [0083]).

With respect to dependent claim 17, Yianilos teaches further the operation of requesting additional information if the group hash value formed in the mobile node is determined to not correspond in value with the corresponding network generated group hash value (see paragraphs [0071], [0076], [0081], and [0083]).

With respect to dependent claim 18, Yianilos teaches further the additional information requested during said operation of requesting comprises values of the individual record hashes (see paragraphs [0070], [0075], [0081], and [0083]).

With respect to dependent claim 19, Yianilos teaches further the operation of sending the values of the individual record hashes to the network part (see paragraphs [0070], [0075], [0081], and [0083]).

With respect to dependent claim 20, Yianilos teaches further the operation of comparing the individual record hashes formed at the mobile node, with corresponding individual record hashes formed at the network part (see paragraphs [0070], [0075], [0081], and [0083]).

Response to Arguments

4. Applicants' arguments with respect to objections and rejections not repeated herein are moot, as the respective objections and rejections have been withdrawn in light of the instant amendments. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JARED M. BIBBEE whose telephone number is (571)270-1054. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. S./
Examiner, Art Unit 2161

/J. M. B./
Examiner, Art Unit 2161

/Apu M Mofiz/
Supervisory Patent Examiner, Art Unit 2161